

Appl. No

09/692,655

Filed

October 19, 2000

AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) An apparatus adapted for use with roof tiles and a roofing surface, the apparatus comprising a support element configured to occupy a space between roof tiles and a roofing surface thereby providing support for at least central portions of the roof tiles, wherein the support element has a length of about four feet, a width of between about seven and a half and eleven inches, and a height of between about one inch and about two inches, such that the support element is sized and adapted to support at least three roof tiles of any shape or size in a single course, and wherein the support element is made from expanded polystyrene thereby allowing the support element to be re-shaped without tools, the support element being non-integral with the tile or the roofing surface.

2. (ORIGINAL) The apparatus of Claim 1, wherein said support element is configured in the shape of a wedge.

3. (WITHDRAWN) The apparatus of Claim 2, wherein said support element has a triangular cross-section.

4. (ORIGINAL) The apparatus of Claim 2, wherein said support element has a quadrilateral cross-section.

5. (CANCELLED)

6. (CURRENTLY AMENDED) The apparatus of Claim 1, wherein said support element includes at least one groove formed in its bottom surface.

7. (WITHDRAWN) The apparatus of Claim 2, further comprising arch sections.

8. (CURRENTLY AMENDED) A roof tile support system, comprising:

a roofing surface;

a plurality of roof tiles; and

a plurality of independent support elements positioned between and in contact with both of said roofing surface and said roof tiles, wherein said support elements are located on the roofing surface with a space between adjacent support elements; wherein said support elements support said roof tiles so as to increase the load capacities of said roof tiles, and wherein each support element is configured to support at least three more than one roof tiles of any shape in a single course.

Appl. No : 09/692,655
Filed : October 19, 2000

9. (CURRENTLY AMENDED) The roof tile support system of Claim 8, wherein
~~said support element is made of a lightweight material the plurality of roof tiles float on the~~
~~plurality of support elements, whereby each individual roof tile is supported against breakage~~
~~by at least one support element.~~

10. (CURRENTLY AMENDED) The roof tile support system of Claim 8, wherein
~~said roofing surface comprises a roof deck with battens. said space is between adjacent~~
~~support elements in a single course.~~

11. (CURRENTLY AMENDED) The roof tile support system of Claim 8, wherein
~~said roof tiles are made of lightweight concrete. space is between a support element in a first~~
~~course and a support element in a next higher course.~~

12. (ORIGINAL) The roof tile support system of Claim 8, wherein said support
elements are separate pieces from said roof tiles and said roofing surface.

13. (PREVIOUSLY PRESENTED) The roof tile support system of Claim 8, wherein
each of said support elements supports four or more roof tiles in a single course.

14. (ORIGINAL) The roof tile support system of Claim 8, wherein said support
elements have a large surface area for contacting a substantial portion of the area under said
roof tiles.

15. (ORIGINAL) The roof tile support system of Claim 8, wherein said support
elements are wedge-shaped.

16. (WITHDRAWN) The roof tile support system of Claim 15, wherein said support
elements have arch sections, and said roof tiles are barrel roof tiles.

17. (WITHDRAWN) The roof tile support system of Claim 15, wherein said support
elements have a triangular cross-section.

18. (ORIGINAL) The roof tile support system of Claim 15, wherein said support
elements have a quadrilateral cross-section.

19. (ORIGINAL) The roof tile support system of Claim 8, wherein said support
elements are made of expanded polystyrene.

20. (ORIGINAL) The roof tile support system of Claim 8, wherein said roof tiles are
arranged in rows and a first row is supported by said support elements such that the roof tiles
of the first row are elevated some distance above a second adjacent row of said roof tiles.

Appl. No : 09/692,655
Filed : October 19, 2000

21. (ORIGINAL) The roof tile support system of Claim 8, wherein said roof tiles are supported by said support elements such that the weight of said tiles, or a concentrated load on said tiles, will be distributed over said support elements and said roofing surface.

22. (ORIGINAL) The roof tile support system of Claim 8, wherein said roof tiles are arranged in rows and a first row is supported by said support elements such that the weight of said tiles, or a concentrated load on said tiles, will be distributed over said support elements, said roofing surface and a second row of roof tiles.

23-25 (CANCELLED)

26. (CURRENTLY AMENDED) A method of installing roof tile supports, comprising:

first, placing a support element on a roofing surface;

then, placing a first roof tile on said support element such that at least a central portion of an underside of said roof tile is substantially supported by the support element, and ~~The method of installing roof tile supports of Claim 23, wherein said first roof tile is placed on said support element such that said first roof tile does not contact a roof tile in an adjacent lower course; and~~

finally, securing said roof tile to said roofing surface.

27. (CURRENTLY AMENDED) The method of installing roof tile supports of ~~Claim 23~~ 26, wherein said first roof tile is placed in contact with both said roofing surface and said support element.

28. (CURRENTLY AMENDED) The method of installing roof tile supports of ~~Claim 23~~ 27, further including a second roof tile adjacent and in the same course with said first roof tile, wherein said first second roof tile is placed in contact with said roofing surface, said support element, and said second first roof tile.

29. (CURRENTLY AMENDED) The method of installing roof tile supports of ~~Claim 23~~ 26, wherein securing said first roof tile to said roofing surface comprises driving a nail through said first roof tile into said roofing surface.

30. (CURRENTLY AMENDED) The method of installing roof tile supports of Claim 29, wherein said nail also passes through a portion of said support element.

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Appl. No : 09/692,655
Filed : October 19, 2000

31. (CURRENTLY AMENDED) The method of installing roof tile supports of Claim 23 26, further including a second support element, wherein said second support element is positioned to the side of said first support element so as to leave a gap between the two elements.

32. (PREVIOUSLY PRESENTED) The support element of Claim 1, wherein the body comprises a width of about seven and a half inches, a front surface height of about one and an eighth inches, and a rear surface height of about three eighths of an inch.

33. (PREVIOUSLY PRESENTED) The support element of Claim 1, wherein the body has a width of about eleven inches, and a front surface height of about one and an eighth inches.

34. (PREVIOUSLY PRESENTED) The support element of Claim 1, wherein the body has a width of about eleven inches, and a front surface height of about one and seven eighths inches.

35-36 (CANCELLED)

37. (NEW) A method of making a roof tile support comprising:

providing a block of expanded polystyrene having dimensions larger than a support to be produced;

cutting said block of expanded polystyrene with a hot wire; and

orienting said wire relative to said block to cut the block into a wedge shape.

38. (NEW) A method of installing roof tiles and roof tile supports on a roofing surface, the roof tile and roof tile supports having corresponding front edges and back edges, the method comprising, in no particular order:

placing a first roof tile support on the roofing surface;

placing a second roof tile support on the roofing surface such that the back edge of the first roof tile support is generally aligned with the front edge of the second roof tile support but spaced apart therefrom;

placing a first tile on the first roof tile support;

placing a second roof tile on the second roof tile support such that the front edge of the second roof tile overlaps the back edge of the first roof tile.

Appl. No : **09/692,655**
Filed : **October 19, 2000**

39
40. (NEW) The method of Claim 38, wherein the front edge of the second roof tile does not contact the back edge of the first roof tile.

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41. (NEW) The method of Claim 38, wherein the front edge of the second roof tile touches the back edge of the first roof tile.

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42. (NEW) The method of Claim 38, wherein the back end of the first roof tile does not touch the roofing surface or the second roof tile or the second roof tile support.

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43. (NEW) The method of Claim 38, wherein the back end of the first roof tile touches the roofing surface.

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44. (NEW) The method of Claim 38, wherein the back end of the first roof tile touches the second roof tile support.

2
44. (NEW) The method of Claim 38, further comprising adjusting the second roof tile on the second roof tile support to increase or decrease an amount by which the front edge of the second roof tile overlaps the back edge of the first roof tile.

45. (NEW) A roofing system comprising:

a roofing surface over which a new roof is to be constructed;

a plurality of roofing tiles;

a plurality of roof tile supports configured to provide structural support to a central portion of the roofing tiles;

wherein the roofing tiles are placed on the supports so as to allow a distance by which an upper course of tiles overlaps a lower course of tiles.

46. (NEW) The system of Claim 45, wherein the upper course of tiles contacts the lower course of tiles.

47. (NEW) The system of Claim 45, wherein the upper course of tiles is supported above and not in contact with the lower course of tiles.

48. (NEW) The system of Claim 45, wherein adjacent supports are separated from one another by a gap.